

Bluefish River

Bluefish River Septic Disposal System

Project Article 14

By JOE GRADY,
CONSERVATION COMMISSIONER

Article 14 proposes to provide an alternative solution to reconstruct 3 failing septic systems that have been identified as a significant source of pollution in the Bluefish River and to assess betterments to the building owners to repay either a portion or all of the Town's construction costs.

In 1993 after a year of in-depth study, the Massachusetts Division of Marine Fisheries issued a report titled "Sanitary Survey Report of Bluefish River in the Town of Duxbury." The author of the report performed a detailed survey of the entire Bluefish Watershed in an effort to identify sources of bacterial contamination that forced the closure of productive shellfish beds in 1986. After identifying all potential pollution sources, a scientific sampling program was initiated. Water quality testing concluded that 3 buildings in the Washington St. Bridge area were the primary contributors of bacteria to the river. The report concluded that shellfishing east of the Washington St. Bridge would not be permitted until these sources were eliminated. After preliminary site review, it became quite clear that the building owners had no options available on their own. The lots in question are small areas of filled salt marsh susceptible to regular flooding and are thereby unable to meet even minimum wetland setbacks and ground water separation regulations. As a result, the Town had to get involved in the solution.

In 1993 the regional tri-town Baywide Committee and Town of Duxbury received a grant from the Massachusetts Bays Program funded by the Federal Environmental Protection Agency totaling \$32,000 to design a solution for the 3 systems identified in the sanitary study. A significant portion of these funds were allotted to review various methods of reconstruction of the 3 septic systems. Article 14 authorizes the selectmen to borrow up to \$150,000 to reconstruct these septic systems in a method that will allow the reopening of shellfish beds for harvest. The Article goes on further to allow the selectmen to execute any necessary legal documents or take easements and to assess betterments to the property owners to repay some or all of the cost of this construction.

Article 14 intends to reverse recent regional trends in closure of productive shellfish beds and improve water quality in Duxbury Bay.

Snug Harbor Sewer Solution

Special Town Meeting Article 4

In a sincere and truly representative effort town meeting of 1994 established the Snug Harbor Sewer Committee to thoroughly study the pollution problem in Snug Harbor and report its recommendations to this year's town meeting. In the spirit of truly representative local government the committee was composed of 2 property owners from the Snug Harbor district, an engineer, 2 citizens at large, a former Conservation administrator and a representative from Battelle Ocean Sciences.

Before detailing our recommendations, it is extremely important we review the strict charge of the committee so as to better understand the context in which our recommendation has been formulated. The charge to the committee:

1. Report its recommendations to next year's annual town meeting and establish a timeline on what to do before town meeting.

2. Review the recent report by the Town's engineering consultant, Dufresne-Henry which was prepared relating to the problem.

3. Evaluate the extent of the problem and look at the economic perspective as well as the health issue in the area.

4. Make recommendations on whether there should be an imposition of betterment fees for properties served by the system.

It is no secret Snug Harbor has had a long history of septic problems. Reports by the State and Duxbury's Board of Health, dating back from the early 70's, have identified high coliform counts from failed septic systems in this area. Revisions to Title V of the State Sanitary Code will become law in March of 1995. Under this law all properties not conforming to the law may be shut down and abandoned. The properties in Snug Harbor do not have Title V septic systems and the majority do not have the land required to construct one. Complicating this situation is the high ground water and impervious soils in the area and the fact that most properties are in the flood zone. The area of study includes only the commercial properties from and including Bayside Marine, north to and including the Duxbury Yacht Club, excluding the Leonard property, and only properties east of Washington St.

Title V allows for the creation of a sewer district where multiple properties can collectively solve their septic problems. A leaching facility can be constructed for this purpose but is restricted to < 10,000 gallons per day. Over 10,000 gallons per day requires a sewage treatment facility that is very expensive and carries with it other problems as was experienced with Article 18 at last year's town meeting.

The current sewage flows at Snug Harbor are 6,314 gallons per day. The committee felt early on that a Title V leaching system would be the best solution to the problem in Snug Harbor. We used the following criteria when reviewing alternatives.

1. The system had to address all of the health and environmental risks.
2. The system had to be economically feasible.
3. The system had to be considerate of neighboring residents.

In September our committee began the long and arduous task of evaluating various alternative solutions to the Snug Harbor problems. We consulted a plethora of technical experts in this area for guidance in this study and chose as our first solution an on-site leaching facility. This was initially very appealing due to the fact that the problem would be solved on-site and could be the most economical. Many such on-site systems it became increasingly and presented to the committee. After evaluating these systems it became increasingly evident that none of the on-site systems could guarantee a long term, risk free solution to the problem. Because of the high ground water an on-site system would have to be raised between 4 to 6 feet above the ground. The fact that Snug Harbor is in the flood zone (a point sorely underscored throughout last year's debate) meant the system would be at risk of leaching into the bay during a flooding event. In the final analysis it turned out that building an on-site mounded system would cost as much as or more than an off-site system without the guarantee of a leak free solution. An engineer from Horsley-Whitten; an environmental firm which just completed a study of septic systems in the coastal regions for the US EPA, also recommended pumping the effluent off-site as the only sure way of preventing contamination of the bay.

The committee then returned to the Dufresne-Henry addendum which recommended an off-site leaching system that would collect the septage in Snug Harbor, remove the solids and pump the effluent to a leaching

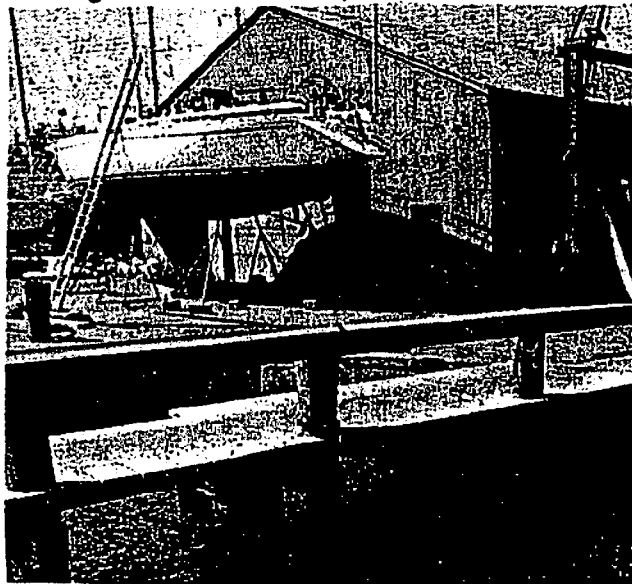
field at the DYC (Duxbury Yacht Club) golf course. Other off-site locations were studied but were rejected as not meeting the criteria the committee had established. The committee met with representatives of the DYC and was informed that they would agree to participate in the solution of this long standing problem because it was in the best interest of the town. We were pleased with the decision of the DYC and applaud their willingness to help. Proof positive Duxbury is still a community where neighbor helping neighbor is not a phrase but indeed a way of life.

Our committee voted unanimously to recommend the Dufresne-Henry plan for the construction of a Community Subsurface Sewage system which allows for < 10,000 gallons per day with the pumping of effluent to the DYC golf course. This plan addresses all of the health risks by pumping off-site to an area with suitable drainage and far enough away from the waterfront to ensure no leaching into the bay. Economically, it made the most sense because a leaching system is far less expensive than full treatment and the off-site alternative was no more expensive than on-site mounded system. Finally the plan was approved because the DYC golf course created the least inconvenience to other parties. The DYC's agreement pertaining to land use was the last hurdle in our recommendation of the plan. Once the plan was voted the committee sent letters to all abutters along Harrison and Washington streets to make sure they were informed of the project. A well publicized and heavily attended public hearing was held on Feb. 23 to provide a forum for all residents to learn of the project, the "nuts and bolts" of the committee's recommendation and express their opinion on the plan.

At the selectmen's request the committee was asked to recommend the creation of a sewer district and imposition of betterment fees. The committee fully

supports the creation of a sewer district for the implementation of the Title V leaching system. The only way to coordinate the construction of the project, obtain necessary easements and borrow funds is through the creation of a sewer district managed by the town of Duxbury. Chapter 80 of the Commonwealth's general laws authorize assessments of betterments for specific projects. The essence of these betterments is to allow cities and towns to borrow funds at a lower interest rate for the construction of private septic systems with the owners paying back the loan over a 20 year period as a surcharge on their tax bill. The committee supports the imposition of betterment fees for the Snug Harbor project. We feel the Duxbury at large benefits by solving the septic problem in Snug Harbor. Failing to correct the problem will result in further closures in the area and the future loss of valuable tax revenue from the properties. Allowing properties in Snug Harbor to close would also have an adverse effect on the community because the condition of our waterfront reflects on the value of each home in Duxbury.

As previously stated the Snug Harbor Sewer Study Committee was established through a vote at last year's town meeting. The impetus of the committee's creation was a check and balance. Town's people wanted to make sure every avenue that led to a possible solution was taken and thoroughly explored on its merits. The committee has met publicly at least twice a month during the last 7 months, in excess of 70 hours



Snug Harbor

researching the problem, its history and formulating a recommendation. We live in a unique region of the country where, via town meeting, we subscribe to the notion that given the opportunity, desire and information local people can and should solve local problems. The 7 local members of the Snug Harbor Sewer Study Committee strongly endorse and urge our fellow residents to vote in the affirmative on Article 2 of the Special Town Meeting which requests design funds for this project so that we can begin the important process of cleaning our bay and ensuring the future viability of the Snug Harbor area.

Snug Harbor Sewer Committee
Chairman Pat Loring Paul Brogna, Jack Davis,
Jerry Hogan, Jack Kent, David Sullivan,
David Waldstein